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Delaram Kahrobaei* (dkahrobaei@gc.cuny.edu), Mathematics Department, New York City College of Technology(CUNY), 300 Jay Street, Brooklyn, NY 11201. *Residual Solvability of One-relator Groups.*

Residual properties of groups is a term introduced by Philip Hall in 1954. Let X be a class of groups. G is residually- X if and only if, for every non-trivial element g in G there is an epimorph of G to a group in X such that the element corresponding to g is not the identity. Gilbert Baumslag showed in 1971 that a group G with a single defining relation in which there are no negative exponents, is residually solvable. The presenter has shown that the generalized free products of finitely generated nilpotent groups are almost residually solvable. She has also found conditions where the generalized free products of doubles of free groups are residually solvable. She will use some of these results to show residual solvability of particularly one-relator groups. She will present examples of one-relator groups that are residually solvable, and that are not residually solvable. If time permits she will mention about applications of these results in true prosolvable completion of a group and related interesting open problems. (Received July 29, 2008)